UniqueTek "Tips" File #24:
"Locking Your Powder Bar Setting"
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The Dillon Powder Bar Adjustment typically has lots of backlash … and that backlash yields powder drop weight variations. You may be able to reduce the backlash by installing an aftermarket adjusting bolt or even eliminate it by installing a micrometer kit. But, in either case, being able to completely lock the powder drop setting will give you confidence that it can't change during a reloading session. Below are instructions for a rather simple but highly effective way of locking your powder bar setting.

Preparing Your Powder Bar For Locking:

Remove the powder bar from your powder measure and disassemble.

NOTE: Instructions for disassembling a Dillon powder bar are included on page 2.

1) Mark a spot 1/2" back from the notch on the side of the powder bar and equal distance between the top and bottom of the powder bar (see photo below). This location will allow you to lock the setting across the full range of the powder bar.
2) Using a 9/64" drill bit, drill a hole through the side of the powder bar. Do NOT drill through both sides!
3) Tap the hole for #8-32 threads.
4) Install an #8-32 x 3/16" set screw in the hole. For now, position the set screw such that none of it is protruding from either end of the hole.
5) Reassemble the powder bar and install in your powder measure.



Photo Courtesy of PhotoEscape, Inc.

Adjusting and Locking Your Powder Bar:

1) Loosen the set screw just enough so that the Powder Bar Insert is free to move. Do not loosen the set screw so much that it protrudes above the hole as this will interfere with the powder bar movement.
2) Adjust the powder drop as you normally would.
3) Once the powder drop is adjusted, tighten the set screw. Do not overtighten as you could either crush the powder bar insert or strip the threads in the powder bar.

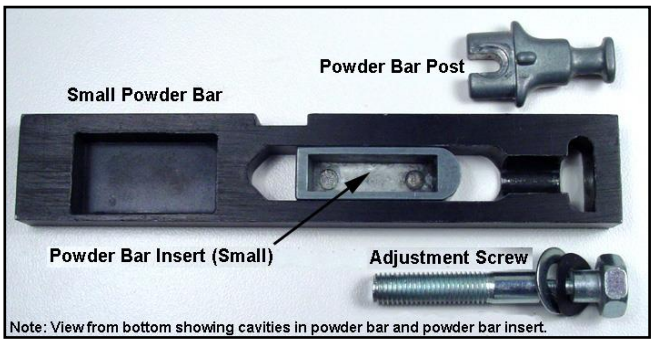
TIP: Installing a stainless thread insert (e.g., Heli-Coil®) in the powder bar hole will add extra insurance that the threads in the powder bar can't be worn out if you change powder drop settings very frequently.

This modification is easy to do if you have an unmodified powder bar, if all you have is a knob or dial attached to the original adjusting bolt, or if you have replaced the entire adjusting bolt with a third party bolt (like that visible in the photo on the previous page). Unfortunately, this is not practical to do if you have already installed a UniqueTek Micrometer Powder Bar Kit™ as removing the micrometer is very difficult and not recommended. However, if you just purchased a Micrometer Powder Bar Kit™, you can easily make this modification prior installation of the kit.

This modification can be done on all Dillon powder bar sizes including the powder bar for the Belted Magnum Powder System and the SL 900 Shot Bar.
NOTE: The position of the hole for the set screw may need to be adjusted slightly for the Belted Magnum Powder System powder bar and SL 900 Shot Bar.

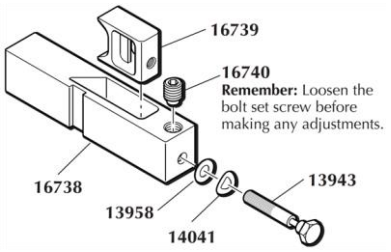
Disassembling a Dillon Powder Bar:

a. Adjust the powder bar so the it is backed away from the minimum powder drop setting by at least two full turns of the Adjusting Screw.
b. Press the head of the Adjusting Screw firmly against a hard surface to compress the spring washer while pulling out the Powder Bar Post. The Belted Magnum powder bar and SL 900 Shot Bar have a 3/8" set screw instead of a Powder Bar Post. Simply remove the set screw using a 3/16" hex key.
c. Separate the Powder Bar Adjustment Screw and Powder Bar Insert from the Powder Bar.



To reassemble, simply revers the above steps.

Note: To Disassemble an SL 900 Shot Bar or the Belted Magnum Powder System Powder Bar, just use a 3/16" Hex Wrench to back out the set screw (1-1/2 turns from snug is enough). (SL 900 Shot Bar shown at right.)



Acknowlegements:

Thanks to Alex Polterak at PhotoEscape, Inc. for sharing this modification, for giving me permission to make it into a "Tips" file, and permission to use his photo.

Disclaimer: UniqueTek, Inc. assumes no liability for damages or personal injury that may be incurred as a result of using the information contained in this document. It is your responsibility to ensure that your reloading equipment is properly assembled, is maintained in proper working condition, and is used according to the manufacturer's instructions and safe reloading practices.

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